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ENVIRONMENTAL PROTECTION  
NORTHWEST REGIONAL OFFICE

May 7, 2012

**Via Certified Mail: No. 7006 0100 0004 0901 7458**

Return Receipt Requested

David Bubbenmoyer  
Air Quality District Supervisor  
Air Quality Program  
Warren District Office  
PA Department of Environmental Protection  
321 N. Warren Street  
North Warren, PA 16365

Re: Saint-Gobain Containers, Inc.  
Port Allegany, PA  
Response to PADEP Stack Test Results Letter  
Global Consent Decree Civil Action Case No. 2:10-cv-00121-TSZ. W.D. Washington

Dear Mr. Bubbenmoyer:

You will note a new letterhead on this letter. Effective April 2010, all 12 Saint-Gobain glass packaging businesses around the globe (including Saint-Gobain Containers, Inc. ("SGCP") in the U.S.) became a single brand: Verallia.

SGCI acknowledges receipt of your letter dated April 4, 2012 and offers the following comments responding to the technical review conducted by the Source Testing Section. Except where specifically noted below, we believe that the sampling performance was valid, the results are representative of actual emissions, and those results demonstrate compliance with the applicable standards.

August 24 and 26, 2010 Sulfuric Acid Mist Testing

We consulted with Mr. Patrick Grady of O'Brien & Gere, the test firm which performed this testing. Mr. Grady confirms that the Sulfuric Acid Mist tests were valid and that the emissions were in compliance with the applicable limit. The testing was conducted in accordance with the pretest protocol; however, there was an apparent deviation from Conditional Test Method (CTM) 13A, as Pennsylvania Department of Environmental Protection's (Department) review of the protocol required that collection efficiency of the sample train be determined in accordance with Section 2.8 of the Department's Source Testing Manual. The Department required that the sample train include two IPA impingers to determine collection efficiency of the sample train. Those two mini-impingers were employed in the testing, although not required by the CTM 13A. The Department's Source Test Manual states, with regard to collection efficiency determination, that the "sample train" shall achieve 95% collection efficiency, and while the first impinger may have collected less than 90% of the total SAM, there is no evidence that the two

**SAINT-GOBAIN CONTAINERS**

One Glass Place, P.O. Box 69 Port Allegany, PA 16743-0069  
Tel: (814) 642-2521 • Fax: (814) 642-3204 • www.sgcontainers.com • www.verallia.com

impingers combined failed to achieve the 95% criteria. In fact, the apparent low "collection efficiency" is, we believe, not indicative of any failure to collect all of the SAM emitted by the source.

It is evident that there was some carryover from the first impinger to the second impinger during the post-test leak check. The leak check is done at 25 inches of vacuum and with the mini-impingers used for the sample train it would be difficult not to have carryover when the pressure is released following completion of the test run. We believe that is why there is no collection efficiency requirement in the test method (CTM 13A). Given the low amount of sulfuric acid in the samples (less than 10 ppm), the sample volume collected (approximately 2 dscf) and the amount of adsorbing solution (approx. 50 ml IPA) we do not believe there was breakthrough of the sample train. A review of the laboratory report indicates that the matrix spike result for these samples was 96 percent, well within the QC limits of the method (80% to 120%). An analyst familiar with this method has indicated that the matrix spike would not have met the QC limits of the method had the IPA become saturated. Therefore, laboratory data from the spiked solution confirms that the IPA was not saturated. As noted above, whereas the CTM 13A sample train consists of only one mini-impinger of 25 ml IPA, the test firm employed two such impingers, thus further assuring total capture of the SAM. In conclusion we believe that this was a valid test since there was no SAM breakthrough based upon the amount of IPA in the impingers and sample volume collected. Enclosed is an amendment, Attachment A, to the test report text Section 3.10 clarifying that two IPA impingers were used.

We consulted with Mr. Michael Kelly of CK Environmental in preparing the responses to the following test report comments.

June 7 – 10, 2011

#### Method 5 Combined with Method 202

1. In accordance with Condition 4 of the March 16, 2011 Bureau of Air Quality protocol review letter (Attachment B), the filter temperature was maintained at 248 +/-25°F. Additionally, enclosed is a copy of a laboratory report (Attachment C) confirming that the natural gas Total Sulfur (% By Weight) is <0.0031%.
2. Lack of stratification and cyclonic flow suggest that additional sample collection for < 5 % of the total runtime should not invalidate the sampling and the results are representative of actual emissions. Although a mid-point was sampled for additional time, the sampling rate was adjusted accordingly to ensure that each individual point was sampled in accordance with isokinetic testing.
3. The reported results were based on a two run average, excluding the data from Run 3 due to the condition of the filter, and a retest was performed.

#### Method 25A

1. The cylinder value was 3.03, the actual response was 3.2 and this does exceed the allowable 5% calibration check. However, the actual stack concentration was bracketed well within the calibration standards and CK suggests that biasing the results high by 0.1 ppm is an acceptable deviation from the method.
2. Summary calibration checks are amended and attached with this response (Attachment D).
3. The data was corrected to ppmvd. Revised sample results summary table is attached with this response (Attachment E).

#### Method 201A

The permit does not require Method 201A, and thus the Method 5 results were sufficient to demonstrate compliance and the subsequent retest using Method 5 was sufficient for such purposes.

#### Method 6C, 7E, and 10

1. The volumetric flow rates were recalculated using only the first 24 points in the Method 5/202 train and not include the last points that were used to obtain the additional cubic feet of sample. Revised sample results summary table is attached with this response. (Attachment E)

August 23, 2011

Method 5 Combined with Method 202

1. Lack of stratification and cyclonic flow suggest that additional sample collection for < 5 % of the total runtime should not invalidate the sampling and the results are representative of actual emissions. CK is of the opinion that it is highly unlikely that the deviations from the method would change the compliance status as the results indicate 6.87 lbs/hr compared to the limit of 11.9 lbs/hr.
2. The 50 DSCF is a secondary requirement if the filters have very low weight gain which is not the case for this testing effort. The NSPS standard requires that the sample volume be at least 31.8 dscf. The filterable PM catch for this program averaged 43.9 mg.
3. The 30 ml/foot of probe is a PA DEP requirement and was overlooked by the field testing personnel. The same probe was used for all 3 tests which should help ensure that all of the particulate matter rinse was collected. The rinse volume on the third run was 140 ml and a rinse volume of 150 ml is required by the method. CK is of the opinion that it is highly unlikely that this minor deviation would change the compliance status of the results.
4. The cyclonic flow and stratification data was amended and is attached with this response (Attachment F).
5. The mass emissions were recalculated using the 24 points as referenced in Method 2. The extra time sampled has no impact on the volumetric flow data used for calculating gaseous lb/hr results. (Attachment G)
6. Process data for Run No. 3 was amended and is attached with this response (Attachment H).

August 24, 2011

Method 5 Combined with Method 202

The results of this test were not used to demonstrate compliance; a retest was performed on 10/21/11.

October 21, 2011

Method 5 Combined with Method 202

1. In accordance with Condition 4 of the March 16, 2011 Bureau of Air Quality protocol review letter (Attachment B), the filter temperature was maintained at 248 +/-25°F. Additionally, enclosed is a copy of a laboratory report (Attachment C) confirming that the natural gas Total Sulfur (% By Weight) is <0.0031%.
2. The sampling points for the PM10 sampling train were inadvertently used for this test program. Although the PM10 points are fewer than the 5/202 points, the compliance status should not be impacted as the results indicate that the unit is operating at < 85% of permitted value.
3. Lack of stratification and cyclonic flow suggest that additional sample collection for < 15 % of the total runtime should not invalidate the sampling and the results are representative of actual emissions.
4. Cyclonic flows have been performed on this unit by CK. A copy of the field data sheet is enclosed (Attachment I).

For the reasons stated above, except where specifically noted, the sampling performance was valid, the results are representative of actual emissions and demonstrate compliance.

SGCI would like to express its disappointment in the Agency's delay in providing comments on the testing program. For example, we note the internal memo commenting on the August 24 and 26, 2010 testing was dated March 9, 2011 yet the letter to us was 13 months after that memo. This did not afford us the opportunity to address your concerns in a timelier manner.

Please note for your records that your letter was addressed to Mr. Rene Beltran; I became the Plant Manager in March. The Responsible Official notification and Title V Administrative Amendment were processed by the Meadville office in March. If you have any questions or require additional information, please contact me at 814-642-3210.

Sincerely,  
Saint-Gobain Containers, Inc.

A handwritten signature in black ink, appearing to read 'Martin Reynolds', with a long horizontal flourish extending to the right.

Martin Reynolds  
Plant Manager

Enclosure

# Attachment A

## SOURCE EMISSION TESTING OF TWO GLASS FURNACES

**3.10 SULFURIC ACID MIST EMISSIONS**

Emissions of SAM (including sulfur trioxide) were determined in accordance with Conditional Test Method (CTM) 13A. The sample train consisted of a heated quartz glass probe, heated quartz filter and five midget impingers in series. The first two impingers each contained 25 milliliters (ml) of 80 percent isopropanol (IPA). The third was empty and the fourth impinger contained 25 ml of 3 percent hydrogen peroxide. The fifth impinger contained indicating silica gel.

Following each test run the probe and front-half of the filter holder were rinsed with 100 percent IPA and placed in a sample container. The contents of the first impinger were placed in sample container #1. The first impinger and back-half of the filter holder and connecting line were rinsed with minimal amounts of 80 percent IPA. The contents of the second impinger were placed in sample container #2. The sulfuric acid mist sample fractions were measured by the barium-thorin titration method. Both sample containers #1 and #2 were analyzed separately.



## Attachment B

Rachel Carson State Office Building  
P.O. Box 8468  
Harrisburg, PA 17105-8468  
March 16, 2011

717-787-1729

**Bureau of Air Quality**

Ms. Jayne Browning  
Saint-Gobain Containers, Inc.  
Saint Gobain Place  
Port Allegany, PA 16743-0069

Dear Ms. Browning:

The test protocol to determine the sulfur dioxide (EPA Method 6C), nitrogen oxides (EPA Method 7E), carbon monoxide (EPA Method 10), volatile organic compounds (EPA Method 25A), filterable/condensable particulate matter (EPA Method 5/202), particulate matter 2.5 $\mu$  and 10 $\mu$  (EPA Method 201A), and visible (EPA Method 9) emissions of glass furnace No. 1 (Source ID 101) at Saint Gobain Container, Inc.'s facility in Port Allegany Borough, McKean County is unacceptable to the Department unless the following conditions are met:

1. Conduct a pretest cyclonic flow check and provide data in the final report.
2. Conduct a pretest gas stratification check and provide data in the final report.
3. The minimum probe rinse for each FPM (EPA Method 5) test run must be at least 30 mL per foot of probe or 200 mL, whichever is greater, to ensure effective recovery.
4. A minimum sample volume of 50 dscf shall be collected for each run of EPA Method 5. The filter temperature shall be maintained at 248°F +/- 25°F.
5. Filterable particulate results shall be presented as gm/kg of glass produced and calculated using equation § 60.296 (d)(1) of 40 CFR 60, Subpart CC. Total particulate results shall be presented as gr/dscf, lb/hr, lb/ton glass produced and ton per year for all four components of the total: filterable, organic condensable, inorganic condensable, and total particulate matter.
6. If at a later time the results from EPA Method 201A are to be used to determine total particulate, the back-half shall be an EPA Method 202 train instead of an EPA Method 5 train. EPA Method 201A on its own provides results for filterable particulate matter 2.5 $\mu$  and 10 $\mu$ .
7. EPA Method 6C, 7E, 10, and 25A test runs and data collection shall be for three runs of at least 60 minutes each.



## Attachment C

2007-11:47AM FR Vineyard Oil & Gas; Div. TO 7259667 No. 6000 P. 2/03

**Microbac**

**MICROBAC LABORATORIES, INC.**  
 ERIC DIVISION  
 1962 WAGER ROAD  
 HIRSH, PA 16509  
 (814) 825-8533 FAX (814) 825-9254  
 MARK MATROZZA, LAB DIRECTOR  
<http://www.microbac.com> E-Mail: [eric@microbac.com](mailto:eric@microbac.com)

STATE CERT ID.  
 25-057, 10121  
 O-PA-05

CHEMISTRY • MICROBIOLOGY • FOOD SAFETY • CONSUMER PRODUCTS  
 WATER • AIR • WASTE • FOOD • PHARMACEUTICALS • NUTRACEUTICALS

### CERTIFICATE OF ANALYSIS

VINEYARD OIL & GAS  
 10299 WEST MAIN ROAD  
 NORTH EAST, PA 16428

Date Reported  
 Date Received 3/27/2007  
 Order Number 9703-02153  
 Invoice No.  
 Cust # 082221

Permit No.  
 Cist P.O.

SUBJECT GAS SAMPLE FOR ANALYSIS RCVD 3-27-07

TEST	METHOD	RESULT	ANALYSIS DATE	TIME	TECH	ACC'D.
001 PORT ALLEGANY P/O SALES METER						
	Date Sampled: 3/26/2007	Time Sampled: 7:30 am				
Sulfur, Total (N&G#-LL)	ASTM D 1072-90		3/27/2007	15:08	MWR	
TOTAL SULFUR		<1 GR/100SCF	3/27/2007	15:08	MWR	
TOTAL SULFUR (% BY WEIGHT)		<0.0031 %	3/27/2007	15:08	MWR	

All samples received in proper condition and results conform to ISO 17025 standards unless otherwise noted

#### Legend

- ⊗ This symbol at the end of the test line means the test analysis met the requirements of NPLAO (PA) ID 25-00067
- ⊗ This symbol at the end of the test line means the test analysis met the requirements of AHA (ID 100386)
- ⊗ This symbol at the end of the test line means the test analysis met the requirements of NY PLAP (NY ID 10121)

#### ABBREVIATIONS:

INFC	= Total Heterocous To Count	MG/ML	= Micrograms per Milliliter (PPM)
U/L	= Micrograms per Liter (PPM)	OFU	= Colony Forming Unit
U/L	= Micrograms per Liter (PPM)	ND	= Not Detected or below the reporting level
U/L	= Micrograms per Liter (PPM)	Y/C	= Tentatively Identified Compound
1000 U/L	= 1 MG/L	Y/C	= Tentatively Identified Compound
Pos/Neg	= Bacteria or target analyte detected	Negative	= Bacteria or target analyte not detected

For any feedback concerning our services, please contact the Managing Director of Trevor Bayne, President at [tbayne@microbac.com](mailto:tbayne@microbac.com) or Robert Morgan, Chief Operating Officer, at [rmorgan@microbac.com](mailto:rmorgan@microbac.com)



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Received File Mar. 27, 2007 4:15 PM No. 5974

SEP-30-2011 10:21 FROM MICROBAC LABS/ERIE DIV. TO 18147259567

Z of Z  
P.02/02

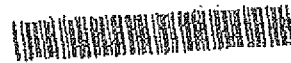
Microbac Laboratories, Inc.

Erie Division

1862 Wager Road • Erie, PA 16509 • Phone: 814-825-8533 • Fax: 814-825-9254

Cheri Estes, Managing Director • E-mail: erie@microbac.com • http://www.microbac.com

## PRELIMINARY CERTIFICATE OF ANALYSIS

Work Order Number:  
1111772Vineyard Oil & Gas  
10299 West Main Road  
North East, PA 16428Date Reported 09/29/2011  
Data Received 09/27/2011  
Order Number 1111772  
Account Number 000000082221

Purchase Order:

Subject: Saint Gobain Location - Gas sample

SMP	TEST	METHOD	RESULT	UNITS	ANALYSIS		NOTES
					DATE	TIME TECH	

Cheri A. Estes  
Managing Director

For any feedback concerning our services, please contact Cheri Estes, Managing Director at Cheri.Estes@microbac.com. You may also contact Sean Hyde, Chief Operating Officer at sean.hyde@microbac.com or James Stokes, President at James.Stokes@microbac.com.

The data and information on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition that it is not to be reproduced wholly or in part for advertising or other purposes without approval from the laboratory.

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MLAP accredited for Environmental Lead. Visit our website to view our current MLAP accreditation.

Purchase Linear

Subject: Saint Gobain Location - Gas Sample

		ANALYSIS			
SMP	TEST	METHOD	RESULT	UNITS	DATE TIME TECH NOTES
04 Natural Gas Sample - Saint Gobain Location					
Sample Date: 09/27/11					
BTU, Dry (High Heat Value), Fuel		ASTM D1945-01/D3588-08	1111	BTU/lb	09/27/11 12:28 WAH
BTU, Net, Dry (Low Heat Value), Fuel		ASTM D1945-01/D3588-08	1004	BTU/lb	09/27/11 12:28 WAH
BTU, Net, Saturated (Low Heat Value), Fuel		ASTM D1945-01/D3588-08	986.7	BTU/lb	09/27/11 12:28 WAH
BTU, Saturated (High Heat Value), Fuel		ASTM D1945-01/D3588-08	1092	BTU/lb	09/27/11 12:28 WAH
Density, g/ml, Fuel		ASTM D1945-01/D3588-08	0.8088	g/ml	09/27/11 12:28 WAH
Density, lb/cu ft, Fuel		ASTM D1945-01/D3588-08	0.0479	lb/cu ft	09/27/11 12:28 WAH
LHV Compounds, Fuel		ASTM D1945-01/D3588-08			
iso-Eutane			0.23 % (mole)		09/27/11 12:28 WAH
Methane			83.6 % (mole)		09/27/11 12:28 WAH
Ethane			7.94 % (mole)		09/27/11 12:28 WAH
Propane			2.05 % (mole)		09/27/11 12:28 WAH
n-Butane			0.39 % (mole)		09/27/11 12:28 WAH
iso-Paraffine			0.09 % (mole)		09/27/11 12:28 WAH
n-Paraffine			0.04 % (mole)		09/27/11 12:28 WAH
Hexenes			<0.01 % (mole)		09/27/11 12:28 WAH
Carbon Dioxide			<0.02 % (mole)		09/27/11 12:28 WAH
Nitrogen			0.70 % (mole)		09/27/11 12:28 WAH
Nitrogen, LHV, WT. %, Fuel		ASTM D1945-01/D3588-08	1.03	WT. %	09/27/11 12:28 WAH
Specific Gravity, LHV, Fuel		ASTM D1945-01/D3588-08	0.526		09/27/11 12:28 WAH

All samples received in proper condition and results conform to ISO 17025 unless otherwise noted

## Notes and Definitions

H <sub>2</sub> gas	- Hydrogen per kilogram (dry)	Heat rate	- Effects of target analysis not detected
kg/kg	- Kilograms per kilogram (dry)	EN	- Colony Forming Unit
kg/kg	- Kilograms per liter (gas)	NO	- Not detected or below the reporting limit
H <sub>2</sub> gas	- Kilograms per liter (gas)	TIC	- Total Ion Chromatogram

## Attachment D



## METHOD 25A DATA SHEET

AMENDED on 4/21/12

PLANT: ST. GOBAIN  
 TEST LOCATION: GUINNESS #1  
 LOAD: \_\_\_\_\_

DATE: 6/8/11  
 OPERATOR: M. KELLY  
 RESPONSE TIME: \_\_\_\_\_

CALIBRATION ERROR TEST					
TEST AREA	CALIBRATION GAS LEVEL (% SPAN)	CYLINDER CONCENTRATION	ACTUAL RESPONSE	PREDICTED RESPONSE	CALIBRATION ERROR
THC INLET	ZERO	0.0			
	LOW (25-35%)				
	MID (45-55%)				
	HIGH (80-90%)				
	SLOPE =				
THC OUTLET	ZERO	0.0	.1		
	LOW (25-35%)	3.03	3.2	3.0	
	MID (45-55%)	4.96	4.8	4.9	
	HIGH (80-90%)	8.9	8.9		
	SLOPE =	9.88			

CALIBRATION ERROR = LESS THAN 5% OF THE RESPECTIVE CYLINDER CONCENTRATION

## FORMULAS:

SLOPE =	$\frac{\text{HIGH LEVEL CAL GAS ACTUAL RESPONSE} - \text{ZERO GAS ACTUAL RESPONSE}}{\text{HIGH LEVEL CAL GAS CYLINDER CONCENTRATION}}$
PREDICTED RESPONSE =	$\text{SLOPE} \times \text{CYLINDER CONCENTRATION}$
CALIBRATION ERROR =	$\frac{100 \times (\text{ACTUAL RESPONSE} - \text{PREDICTED RESPONSE})}{\text{CYLINDER CONCENTRATION}}$

CALIBRATION DRIFT TEST									
TEST AREA	CE TEST	RUN 1		RUN 2		RUN 3		SPARE	
		RESPONSE	DRIFT	RESPONSE	DRIFT	RESPONSE	DRIFT	RESPONSE	DRIFT
THC INLET									
THC OUTLET		.1	0	.4	3	.7	3		
		9.8	0	5.0	2	4.8	2		

CALIBRATION DRIFT = LESS THAN 3% OF THE MEASUREMENT SPAN

CALIBRATION DRIFT =	$\frac{100 \times (\text{CAL ERROR TEST ACTUAL RESPONSE} - \text{CAL DRIFT TEST RESPONSE})}{\text{MEASUREMENT SPAN}}$
---------------------	---

RUN AVERAGES	RUN 1	RUN 2	RUN 3	SPARE
RUN TIME:	13:47-16:08	16:55-18:10		
INLET:				
OUTLET:	6.43	2.94		
DE %:				

Quality Control Check: Completeness \_\_\_\_\_ Legibility \_\_\_\_\_ Accuracy \_\_\_\_\_ Specifications \_\_\_\_\_ Reasonableness \_\_\_\_\_



## METHOD 25A DATA SHEET

PLANT: St. Gobnín  
 TEST LOCATION: Furnace #1  
 LOAD: \_\_\_\_\_

AMENDED on 4/24/12  
 DATE: 6/8/11  
 OPERATOR: M. KELLEY  
 RESPONSE TIME: \_\_\_\_\_

CALIBRATION ERROR TEST					
TEST AREA	CALIBRATION GAS LEVEL (% SPAN)	CYLINDER CONCENTRATION	ACTUAL RESPONSE	PREDICTED RESPONSE	CALIBRATION ERROR
THC INLET MEASUREMENT SPAN =	ZERO	0.0			
	LOW (25-35%)				
	MID (45-55%)				
	HIGH (80-90%)				
	SLOPE =				
THC OUTLET MEASUREMENT SPAN =	ZERO	0.0 (8105)	0		
	LOW (25-35%)	3.03 (8113)	3.0	3.03	1.0
	MID (45-55%)	4.96 (8117)	4.9	4.96	1.2
	HIGH (80-90%)	8.9 (8109)	8.9		
	SLOPE =	1.0			

CALIBRATION ERROR = LESS THAN 5% OF THE RESPECTIVE CYLINDER CONCENTRATION

## FORMULAS:

SLOPE =	$\frac{(\text{HIGH LEVEL CAL GAS ACTUAL RESPONSE} - \text{ZERO GAS ACTUAL RESPONSE})}{\text{HIGH LEVEL CAL GAS CYLINDER CONCENTRATION}}$
PREDICTED RESPONSE =	$\text{SLOPE} \times \text{CYLINDER CONCENTRATION}$
CALIBRATION ERROR =	$\frac{100 \times (\text{ACTUAL RESPONSE} - \text{PREDICTED RESPONSE})}{\text{CYLINDER CONCENTRATION}}$

CALIBRATION DRIFT TEST									
TEST AREA	CE TEST ACTUAL RESPONSE	RUN 1		RUN 2		RUN 3		SPARE	
		RESPONSE	DRIFT	RESPONSE	DRIFT	RESPONSE	DRIFT	RESPONSE	DRIFT
THC INLET									
THC OUTLET		0	0	0 (1132)	0				
		4.9	0	4.9 (1125)	0				

CALIBRATION DRIFT = LESS THAN 3% OF THE MEASUREMENT SPAN

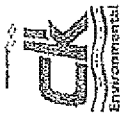
CALIBRATION DRIFT =	$\frac{100 \times (\text{CAL ERROR TEST ACTUAL RESPONSE} - \text{CAL DRIFT TEST RESPONSE})}{\text{MEASUREMENT SPAN}}$
---------------------	---

RUN AVERAGES	RUN 1	RUN 2	RUN 3	SPARE
RUN TIME:				
INLET:				
OUTLET:	6.57			
DE %:				

Quality Control Check: Completeness \_\_\_\_\_ Legibility \_\_\_\_\_ Accuracy \_\_\_\_\_ Specifications \_\_\_\_\_ Reasonableness \_\_\_\_\_

# Attachment E





Summary of Performance Testing Emissions  
Sant Gobair - Port Allegany  
Furnace #1

6/8-9/2011

Test Run No. Date Time	Run 1 06/08/11 13:40 14:55	Run 2 06/08/11 16:55 18:10	Run 3 06/09/11 9:08 10:32	Average	Facility Permit Limit
<b>Sample Conditions</b>					
Volume	32,808	50,538	51,398	51,721	
Volume	1,496	1,443	1,456	1,465	
Isobutyls	99.3	96.7	105.3	100.4	
Glass Pull	7.8	7.8	7.8	7.8	
<b>Stack Conditions</b>					
Flow Rate	24,581	25,051	21,665	23,766	
Temperature	420.5	392.8	405.7	407.3	
Moisture	11.7	12.1	14.9	12.9	
Oxygen	16.2	16.0	16.2	16.1	
Carbon Dioxide	4.0	3.9	3.9	3.9	
Oxides of Nitrogen	133.0	149.0	142.2	141.4	
Oxides of Nitrogen	23,440	26,757	22,687	24.1	7.8
Oxides of Nitrogen	3,005	3,426	2,828	3.1	
Carbon Monoxide	102.67	117.19	96.74	105.5	
Carbon Monoxide	371.6	433.7	280.3	361.8	
Carbon Monoxide	39,843	47,391	26,490	37.9	
Carbon Monoxide	5,108	6,068	3,392	4.9	
Carbon Monoxide	174.51	207.57	116.02	166.0	
Sulfur Dioxide	63.9	57.2	47.4	56.2	580
Sulfur Dioxide	15,672	14,299	10,245	13.4	
Sulfur Dioxide	2,009	1,831	1,312	1.7	
Sulfur Dioxide	68.64	62.63	44.87	58.7	
Volatiles Organic Compounds	6.43	2.94	6.57	5.3	
Volatiles Organic Compounds	7.28	3.34	7.72	6.1	
Volatiles Organic Compounds	1,084	6,505	0,576	0.9	
Volatiles Organic Compounds	0,139	0,065	0,125	0.1	
Volatiles Organic Compounds	4.75	2.21	4.27	3.7	
Opacity	5.2	3.3	5.1	5.2	<20

Recalculated emission rates using 24 Traverse Points

a) dry standard cubic feet  
b) dry standard cubic meters

## Attachment F



## Attachment G



Summary of Performance Testing Emissions  
 Saint Gobain - Port Allegany  
 Furnace #3  
 8/23/01

Test Run No.	Run 1	Run 2	Run 3	Average	Facility Permit Limit
Date	8/23/2001	8/23/2001	8/23/2001		
Time	10:40 12:30	13:25 17:03	17:40 19:08		
Start					
Stop					
<b>Stack Conditions</b>					
Volume	50,003	46,122	46,769	47,658	
Volume	1,419	1,366	1,324	1,350	
Residence	101.9	94.4	96.7	97.7	
Gas Flow	11.2	11.2	11.2	11.2	
<b>Stack Conditions</b>					
Flow Rate	37,556	37,350	38,111	37,839	
Temperature	488.2	478.3	485.1	477.2	
Moisture	4.9	7.1	7.1	6.4	
Oxygen	16.3	16.3	16.4	16.4	
Carbon Dioxide	3.6	3.6	3.6	3.6	
Oxides of Nitrogen	125.7	130.6	126.9	127.7	
Oxides of Nitrogen	32,849	34,466	34,655	34,66	
Oxides of Nitrogen	3,022	3,165	3,094	3.1	
Oxides of Nitrogen	146.26	155.25	151.79	151.8	6.0

Recalculated emission rates using 12 traverse points

- a) dry standard cubic feet  
 b) dry standard cubic meters  
 c) dry standard cubic feet per minute

## Attachment H

# **Process Operating Data Saint Gobain Containers -Port Allegany, Pa Furnace 3**

		267.05	268.0		# 3
		Glass Feed Rate	Glass Pull Rate	Gas Usage	Front Crown Temp
Date	Time	Ton/Hr	Ton/Hr	MCF/Hr	Deg F
8-23-11	0800	267.05 / 11.2	268.0 / 11.2	46.25	2668
	0815	11.2	11.2	45.25	2668
	0830	11.2	11.2	46.25	2665
	0845	11.2	11.2	45.25	2666
	0900	11.2	11.2	46.25	2669
	0915	11.2	11.2	46.25	2666
	0930	11.2	11.2	45.25	2660
	0945	11.2	11.2	46.25	2670
	1000	11.2	11.2	45.25	2661
	1015	11.2	11.2	45.25	2664
	1030	11.2	11.2	46.25	2658
	1045	11.2	11.2	45.25	2655
	1100	11.2	11.2	46.25	2658
	1115	11.2	11.2	45.25	2656
	1130	11.2	11.2	45.25	2660
	1145	11.2	11.2	46.25	2657
	1200	11.2	11.2	46.25	2660
	1215 PM	11.2	11.2	45.50	2668
	1230 PM	11.2	11.2	46.25	2657
	1245 PM	11.2	11.2	45.50	2656
	1300 PM	11.2	11.2	46.25	2658
	1315 PM	11.2	11.2	46.25	2657
	1330 PM	11.2	11.2	45.50	2660
	1345 PM	11.2	11.2	46.25	2657
	1400 PM	11.2	11.2	45.50	2657
	1415 PM	11.2	11.2	46.25	2657
	1430 PM	11.2	11.2	45.50	2664
	1445 PM	11.2	11.2	46.25	2657
	1500 PM	11.2	11.2	45.50	2656
	1515 PM	11.2	11.2	46.25	2663
	1530 PM	11.2	11.2	45.50	2659
	1545 PM	11.2	11.2	45.50	2660
	1600 PM	11.2	11.2	46.25	2657
	1615 PM	11.2	11.2	45.50	2663
	1630 PM	11.2	11.2	45.50	2661
	1645 PM	11.2	11.2	46.25	2657
	1650 PM	11.2	11.2	45.50	2660





# Attachment I

## CYCLONIC + DIAG FLOW

CK Environmental, Inc.

Phone: (781) 828-8200

Fax: (781) 828-5330

EPA Method 5 / 202

Field Data Sheet

Run No

Page 1 of 1

Client: Saint Gobain  
 Plant: Duct Dia.  
 Facility: Test Duration  
 City, State: Min. Per PL  
 Test Date: Amb Temp  
 Location: Furnace #1  
 Testers: Bar. Press.  
 Meter Box ID: Filter No.

Nozzle No. & Dia.  
 Probe ID.  
 Probe Heat Set  
 Filter Temp. Set  
 Assumed % H<sub>2</sub>O  
 Nomograph K Factor  
 Dry Gas Meter V

Pilot Coefficient  
 Orifice Delta H @  
 Test Time  
 Train Leak Check  
 Pilot Leak Check  
 (23" WC)

Start CFM @ In. Hg.  
 Final CFM @ In. Hg.  
 Start CFM @ In. Hg.  
 Final CFM @ In. Hg.

Stack Static Pressure:	Point	Time min.	Velocity Delta P	Gas Vol. ft <sup>3</sup>	Temp Pib F	T stack F	Dry Gas Meter Inlet	Dry Gas Meter Outlet	Filter Box F	Last Imp F	Aux F	Pump Vac Hg"
A	1	53	0	409								
	2	61	3	412								
	3	68	10	414								
	4	64	0	417								
	5	81	0	418								
	6	48	5	428								
	7	24	10	421								
	8	19	5	428								
	9	18	0	419								
	10	16	0	420								
B	1	12	0	416								
	2	12	0	412								
	3	28	0	421								
	4	31	0	421								
	5	34	0	420								
	6	52	0	422								
	7	51	0	423								
	8	42	0	423								
	9	27	0	423								
	10	26	0	424								
C	1	23	0	425								
	2	17	0	416								
	3	16	0	419								

Field Calculations  
 $As = \frac{ft^2}{ft^2}$   
 $Tsid = 528 R$   
 $Psid = 29.92 \text{ in. Hg}$   
 $Ps = Pbar + (Pgh/3.6) = \frac{R}{in. Hg}$   
 $Vs = (95.49) \times Cp \times \sqrt{(Delta P) \times \frac{Ps}{(Psid)}}$   
 $= \frac{ft^3}{sec}$   
 $Qa = 50 \times Vs \times As = \frac{ACFM}{ft^3/sec}$   
 $Qcid = Qa \times (1-Bws) \times (Tsid/Ts) \times (Ps/Psid)$   
 $= \frac{DSCFM}{ft^3/sec}$

Orsat Analysis

EPA Method 3

O<sub>2</sub>CO<sub>2</sub>

TOTAL

N<sub>2</sub> Purge @ 20lpm Start Time

End Time

Accuracy

Specifications

Reasonableness

Notes:

Qualify Control Checks

Completeness

Legibility

Cc: All send certified mail – return receipt requested

Via Certified Mail: No. 7006 0100 0004 0902 1325

Director  
Air Enforcement Division (2242A)  
Office of Enforcement and Compliance Assurance  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

Via Certified Mail: No. 7006 0100 0004 0902 1332

Mr. Christopher Pilla, Chief  
Air Enforcement Branch  
Mail Code 3AP12  
U.S. Environmental Protection Agency – Region 3  
1650 Arch Street.  
Philadelphia, PA 19103

Via Certified Mail: No. 7006 0100 004 0.901 7496

Staci Gustafson, Operations Chief  
Air Quality Program  
Pennsylvania Department of Environmental Protection  
Meadville Regional Office  
230 Chestnut Street  
Meadville, PA 16335

John W. Carroll  
Pepper Hamilton, LLP  
100 Market Street  
Harrisburg, PA 17108

David Knight  
Saint-Gobain Containers, Inc.

Alan McLenaghan  
Saint-Gobain Containers, Inc

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